



## MRG5800

Part Number: MRG5800

COAX RF RG58 PVC

## Product Description

COAX RF RG58 PVC

## Product Specifications

### Application

Application 1:

Coaxial communication cable based on MIL-C-17

## Technical Specifications

### Bend Radius

Min Bend Radius (W/o Pulling Strength):

25 mm

### CCB-Sub-Crush Resistance

Crush Resistance:

Max. 1% (load of 700N) N

### CCB-Sub-Material

Min Elongation at Break of Jacket:

150 MPa

Min Tensile Strength of Jacket:

12.5 lbs

### EMEA Standard

CENELEC Compliance:

EN 50290-2-20 and EN 50289

### Environmental Characteristics

Operating Temp Range:

-40 to +70 °C

|                          |               |
|--------------------------|---------------|
| Storage Temp Range:      | -40 to +70 °C |
| Installation Temp Range: | -5 to +50 °C  |

## General Electrical Parameters

|                            |                   |
|----------------------------|-------------------|
| Min Insulation Resistance: | 10000 mOhm/1000ft |
|----------------------------|-------------------|

## History

|                  |            |
|------------------|------------|
| Revision Date:   | 2008-06-05 |
| Revision Number: | 6          |

## North American Standard

|                  |          |
|------------------|----------|
| MIL Spec Rating: | MIL-C-17 |
|------------------|----------|

### Impedance:

| Nominal Characteristic Impedance |       |            |
|----------------------------------|-------|------------|
| 50 mOhm/ft                       | 2 Ohm | Min. 40 dB |

### Conductor DCR:

| Max. Conductor DCR |
|--------------------|
| 40.6 Ohm/100m      |

### Delay:

| Nominal Velocity of Propagation (VP) |
|--------------------------------------|
| 66 ns/100m                           |

### Voltage:

| Voltage Rating       |
|----------------------|
| 4000 dc / 2000 rms V |

### High Freq:

| Element | Frequency [MHz] | Min. RL (Return Loss) |
|---------|-----------------|-----------------------|
|         | 5 - 30 MHz      | 20 dB                 |
|         | 30 - 470 MHz    | 20 dB                 |
|         | 470 - 1000 MHz  | 18 dB                 |

In each frequency band, 3 peak values up to 4 dB lower are allowed

**Capacitance:**

| Capacitance Tolerance | Nominal Capacitance |
|-----------------------|---------------------|
| 2 pF/m                | 100 pF/m            |

**High Frequency (Nominal/Typical):**

| Element                     | Frequency (MHz) | Nom. Insertion Loss |
|-----------------------------|-----------------|---------------------|
|                             | 10 MHz          | 4.7 db/100m         |
|                             | 200 MHz         | 23 db/100m          |
|                             | 400 MHz         | 34 db/100m          |
|                             | 1000 MHz        | 60 db/100m          |
| Max. attenuation 10% higher |                 |                     |

**Insulation:**

| Type       | Material     | Nominal Diameter | Diameter +/- Tolerance |
|------------|--------------|------------------|------------------------|
| Dielectric | Polyethylene | 2.95 mm          | 0.15 mm                |

**Outerjacket 1:**

| Element                    | Material | Nominal Diameter | Diameter +/- Tolerance |
|----------------------------|----------|------------------|------------------------|
|                            | PVC      | 4.95 mm          | 0.2 mm                 |
| According to EN 50290-2-20 |          |                  |                        |

**Conductor:**

| Stranding | Material      | ConstructionNXD | Diameter +/- Tolerance |
|-----------|---------------|-----------------|------------------------|
| Stranded  | Tinned Copper | 19x0.18 mm      | 0.02 mm                |

**Outershield 1:**

| Type  | Material      | Coverage | Nominal Diameter | Diameter +/- Tolerance | Coverage +/- Tolerance |
|-------|---------------|----------|------------------|------------------------|------------------------|
| Braid | Tinned copper | 93 %     | 3.5 mm           | 0.2 mm                 | 4 %                    |

## Product Variants

| Part Number    | Color | Put-Up Type | Length |
|----------------|-------|-------------|--------|
| MRG5800.00500  | BLACK | Reel        | 500 m  |
| MRG5800.00B200 | BLACK | Flat Box    | 200 m  |
| MRG5800.01500  | BLACK | Reel        | 500 m  |
| MRG5800.02500  | WHITE | Reel        | 500 m  |
| MRG5800.10100  | BLACK | Reel        | 100 m  |
| MRG5800.12100  | WHITE | Reel        | 100 m  |

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